```
=> d his ful

     (FILE 'HOME' ENTERED AT 16:35:41 ON 07 JUN 2006)

     FILE 'REGISTRY' ENTERED AT 16:43:09 ON 07 JUN 2006
L1             STR
L2           50 SEA SSS SAM L1
L3        13161 SEA SSS FUL L1

     FILE 'HCAPLUS' ENTERED AT 16:49:54 ON 07 JUN 2006
L4           846 SEA ABB=ON  L3

     FILE 'REGISTRY' ENTERED AT 16:51:04 ON 07 JUN 2006
               E HISTONE DEACETYLASE/CN
L5           157 SEA ABB=ON  HISTONE DEACETYLASE?/CN

     FILE 'HCAPLUS' ENTERED AT 16:52:38 ON 07 JUN 2006
L6            13 SEA ABB=ON  L4 AND (L5 OR ?HISTONE?(W)?DEACETYLASE?)(4A)?INHIBI
                  T?

     FILE 'REGISTRY' ENTERED AT 16:54:30 ON 07 JUN 2006
L7             STR
L8             0 SEA SSS SAM L7
L9             3 SEA SSS FUL L7
L10        13159 SEA ABB=ON  L3 NOT L9

     FILE 'HCAPLUS' ENTERED AT 16:59:25 ON 07 JUN 2006
L11          844 SEA ABB=ON  L10
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     FILE 'HCAPLUS' ENTERED AT 17:01:19 ON 07 JUN 2006
L13            5 SEA ABB=ON  L12 AND (PRD<20020723 OR PD<20020723)

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L14            2 SEA ABB=ON  L12 AND (PRD<20020723 OR PD<20020723)

     FILE HOME

     FILE REGISTRY
     Property values tagged with IC are from the ZIC/VINITI data file
     provided by InfoChem.

     STRUCTURE FILE UPDATES:    6 JUN 2006  HIGHEST RN 887000-62-6
     DICTIONARY FILE UPDATES:   6 JUN 2006  HIGHEST RN 887000-62-6

     New CAS Information Use Policies, enter HELP USAGETERMS for details.

     TSCA INFORMATION NOW CURRENT THROUGH January 6, 2006

       Please note that search-term pricing does apply when
       conducting SmartSELECT searches.

     ************************************************************
     *                                                          *
     * The CA roles and document type information have been removed from *
     * the IDE default display format and the ED field has been added,   *
     * effective March 20, 2005.  A new display format, IDERL, is now    *
     * available and contains the CA role and document type information. *
     *                                                          *
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5 cits from CA Plus

2 cits from USPatFull

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Structure search iteration limits have been increased. See HELP SLIMITS for details.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

http://www.cas.org/ONLINE/UG/regprops.html

FILE HCAPLUS

FILE COVERS 1907 - 7 Jun 2006 VOL 144 ISS 24
FILE LAST UPDATED: 6 Jun 2006 (20060606/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

FILE USPATFULL
FILE COVERS 1971 TO PATENT PUBLICATION DATE: 6 Jun 2006 (20060606/PD)
FILE LAST UPDATED: 6 Jun 2006 (20060606/ED)
HIGHEST GRANTED PATENT NUMBER: US7058980
HIGHEST APPLICATION PUBLICATION NUMBER: US2006117448
CA INDEXING IS CURRENT THROUGH 6 Jun 2006 (20060606/UPCA)
ISSUE CLASS FIELDS (/INCL) CURRENT THROUGH: 6 Jun 2006 (20060606/PD)
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Feb 2006
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Feb 2006

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COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.44	772.95

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	0.00	-13.50

SESSION WILL BE HELD FOR 60 MINUTES
STN INTERNATIONAL SESSION SUSPENDED AT 17:04:37 ON 07 JUN 2006

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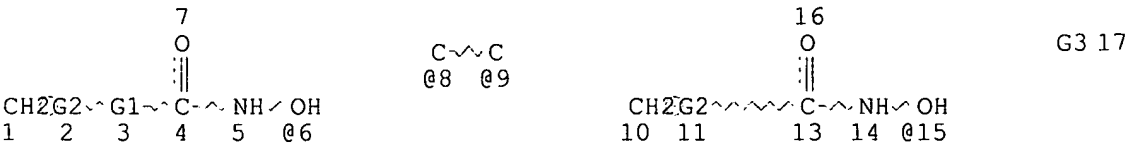


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VAR G3=6/15
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DEFAULT ECLEVEL IS LIMITED

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RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS  16

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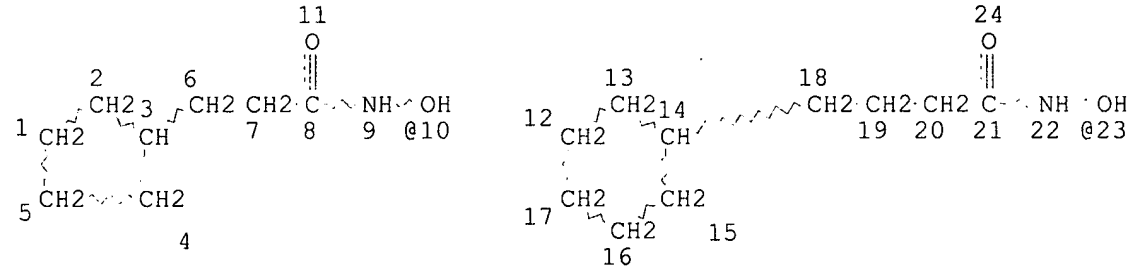

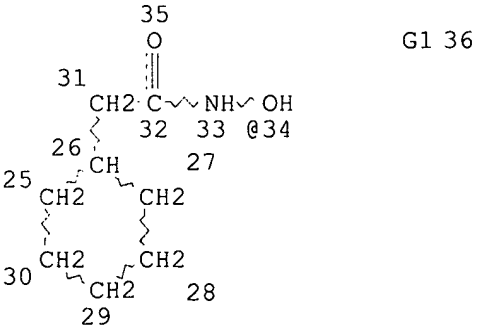


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                 E?)(4A)?INHIBIT?
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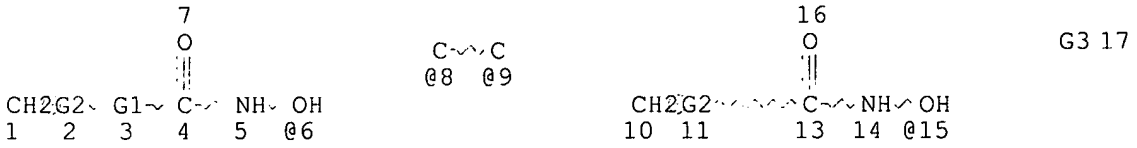


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VAR G3=6/15
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DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS  16

STEREO ATTRIBUTES: NONE
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L5           157 SEA FILE=REGISTRY ABB=ON  HISTONE DEACETYLASE?/CN
L7                STR
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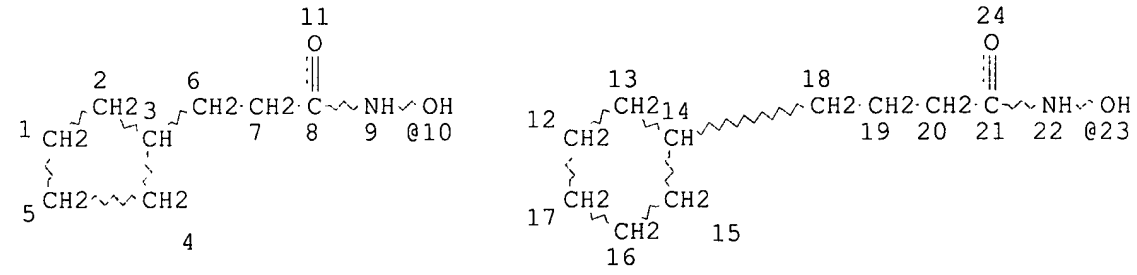

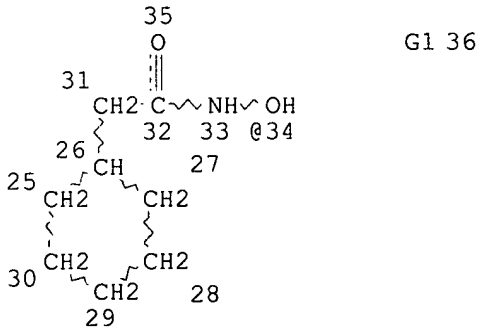


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DEFAULT MLEVEL IS ATOM
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DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
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STEREO ATTRIBUTES: NONE

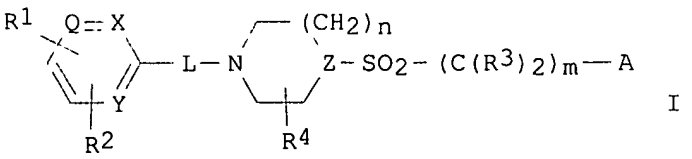
L9	3	SEA FILE=REGISTRY SSS FUL L7
L10	13159	SEA FILE=REGISTRY ABB=ON L3 NOT L9
L11	844	SEA FILE=HCAPLUS ABB=ON L10
L12	13	SEA FILE=HCAPLUS ABB=ON L11 AND (L5 OR ?HISTONE?(W)?DEACETYLASE?)(4A)?INHIBIT?
L14	2	SEA FILE=USPATFULL ABB=ON L12 AND (PRD<20020723 OR PD<20020723)

=> d ibib abs hitstr l13 1-5

L13 ANSWER 1 OF 5 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2003:737742 HCAPLUS
DOCUMENT NUMBER: 139:276884
TITLE: Preparation of sulfonyl-derivatives as novel inhibitors of histone deacetylase
INVENTOR(S): Van Emelen, Kristof; Arts, Janine; Backx, Leo Jacobus Jozef; De Winter, Hans Louis Jos; Van Brandt, Sven Franciscus Anna; Verdonck, Marc Gustaaf Celine; Meerpoel, Lieven; Pilatte, Isabelle Noeelle Constance; Poncelet, Virginie Sophie; Dyatkin, Alexey Borisovich
PATENT ASSIGNEE(S): Janssen Pharmaceutica N.V., Belg.; et al.
SOURCE: PCT Int. Appl., 139 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 8
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE	
WO 2003076422	A1	20030918	WO 2003-EP2516		20030311	<--
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW						
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG						
CA 2476586	AA	20030918	CA 2003-2476586		20030311	<--
AU 2003218738	A1	20030922	AU 2003-218738		20030311	<--
EP 1485365	A1	20041215	EP 2003-711982		20030311	<--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK						
BR 2003007575	A	20041221	BR 2003-7575		20030311	<--
US 2005113373	A1	20050526	US 2003-507708		20030311	<--
CN 1642931	A	20050720	CN 2003-805952		20030311	<--
JP 2005525380	T2	20050825	JP 2003-574641		20030311	<--
NZ 534830	A	20050826	NZ 2003-534830		20030311	<--
NO 2004004314	A	20041012	NO 2004-4314		20041012	<--
PRIORITY APPLN. INFO.:			US 2002-363799P	P	20020313	<--
			US 2002-420989P	P	20021024	
			WO 2003-EP2516	W	20030311	

OTHER SOURCE(S): MARPAT 139:276884
GI



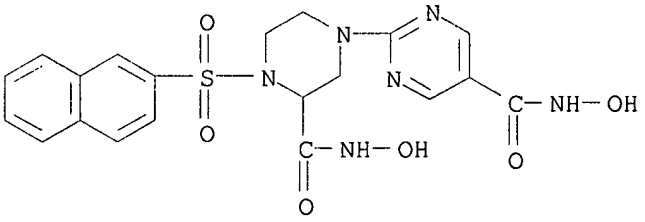
I

AB This invention comprises the novel compds. (I) (wherein n = 1-3, m = 1-4, Q, X, Y = N, CH; Z = N, CH; R1 = (un)substituted amido, acylamido, guandido, and other Zn chelating group, etc.; R2 = H, halo, OH, NH2, NO2, C1-6alkyl, C1-6alkoxy, CF3, di(C1-6alkyl)amino, HONH, naphthalenylsulfonylpyrazinyl; R3 = H aryl; R4 = H, HO, NH2, hydroxyC1-6alkyl, C1-6alkyl, C1-6alkoxy, arylC1-6alkyl, aminocarbonyl, hydroxycarbonyl, aminoC1-6alkyl, aminocarbonylC1-6alkyl, hydroxycarbonylC1-6alkyl, hydroxyaminocarbonyl, C1-6alkoxycarbonyl, C1-6alkylamino, di(C1-6alkyl)aminoC1-6alkyl; L = nul or bivalent radical selected from C1-6alkanediyl, amino, carbonyl or aminocarbonyl; A = aryl, cyclohexyl, heterocyclic derivs.), having histone deacetylase inhibiting enzymic activity; their preparation, compns. containing them and their use as a medicine. For example, 4-(4-(2-naphthylsulfonyl)piperazin-1-yl)-N-hydroxybenzamide in 100% yield was prepared by the hydrogenation of 4-(4-(2-naphthylsulfonyl)piperazin-1-yl)-N-(phenylmethoxy)benzamide (II) in THF by Pd/C as a catalyst. II was prepared from 1,1-dimethylethyl 4-(4-carboxyphenyl)-1-piperazinecarboxylate and O-(phenylmethyl)hydroxylamine hydrochloride in presence of dimethylaminopyridine in CH2Cl2 and diisopropylcarbodiimide, forming 1,1-dimethylethyl 4-[4-[(phenylmethoxy)amino]carbonylphenyl]-1-piperazinecarboxylate which was saponified and subsequently reacted with 2-naphthalenesulfonyl chloride to give the II.

IT 604769-20-2P
RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of sulfonyl derivs. as histone deacetylase inhibitors and antitumor agent for treatment of cancer)

RN 604769-20-2 HCAPLUS

CN 5-Pyrimidinecarboxamide, N-hydroxy-2-[3-[(hydroxyamino)carbonyl]-4-(2-naphthalenylsulfonyl)-1-piperazinyl]- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 2 OF 5 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2003:678775 HCAPLUS
DOCUMENT NUMBER: 139:214215
TITLE: Preparation of N-hydroxycarboxamide derivatives as anticancer agents
INVENTOR(S): Uesato, Shinichi; Nagaoka, Yasuo; Yamori, Takao
PATENT ASSIGNEE(S): Osaka Industrial Promotion Organization, Japan
SOURCE: PCT Int. Appl., 137 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003070691	A1	20030828	WO 2003-JP1681	20030218 <--
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2003211362	A1	20030909	AU 2003-211362	20030218 <--
PRIORITY APPLN. INFO.:			JP 2002-45310 A	20020221 <--
			JP 2002-235912 A	20020813
			WO 2003-JP1681 W	20030218

OTHER SOURCE(S): MARPAT 139:214215

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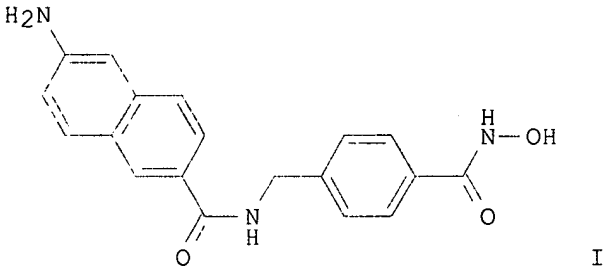

I

AB The title N-hydroxycarboxamides with general formula of D-L2-B-N(R)-L1-A-CONHOH [wherein A = cycloalkylene, phenylene, naphthylene, anthrylene, phenanthrylene, cycloalkenylene, biphenylene, heterocycloalkylene, or heterocycloalkenylene, etc., with exclusions; B = CO, CS, NHCO, NHCS, SO2, SO, S, O, CO2, or OCO; D = cycloalkyl, adamantyl, Ph, naphthyl, anthryl, phenanthryl, cycloalkenyl, biphenylyl, pyridyl, quinolyl, isoquinolyl, indolyl, heterocycloalkyl, or heterocycloalkenyl, etc., with exclusions; L1 and L2 = independently alkylene or none; R = H, alkyl, CHO, alkanoyl, PhCO, or PhCH2CO] and tautomers, stereoisomers, or salts thereof are prepared as potent histone deacetylase (HDAC) inhibitors. The N-hydroxycarboxamide derivs. are useful in treating, relieving, and preventing diseases concerning cell proliferation. In particular, it is expected that these derivs. are highly efficacious as an anticancer agent or a carcinostatic agent. Moreover, it is expected that the above N-hydroxycarboxamide derivs. are efficacious as an immunosuppressant or a gene therapy potentiator and usable in treating, relieving, and preventing neurodegenerative diseases. For example, the compound I•HCl was prepared in a four-step synthesis in moderate yield. I showed IC50 of 39 nM against human histone deacetylase (HDAC).

IT 471924-76-2P 471924-77-3P 471924-78-4P
471924-84-2P 471924-85-3P 471924-88-6P
471925-06-1P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU

(Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(drug candidate; preparation of hydroxycarboxamide derivs. as anticancer agents)

RN 471924-76-2 HCAPLUS
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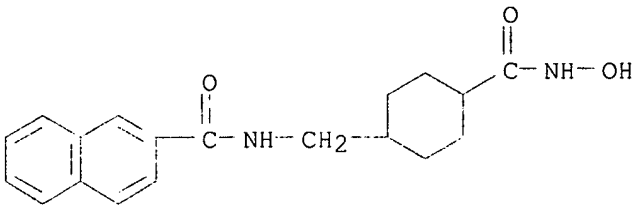

RN 471924-77-3 HCAPLUS
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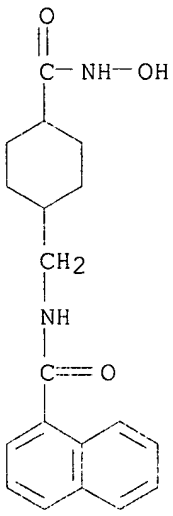

RN 471924-78-4 HCAPLUS
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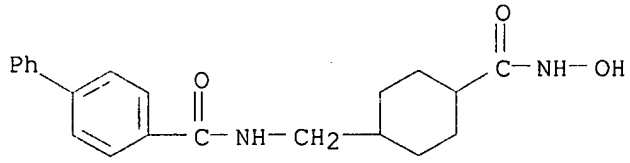

RN 471924-84-2 HCAPLUS
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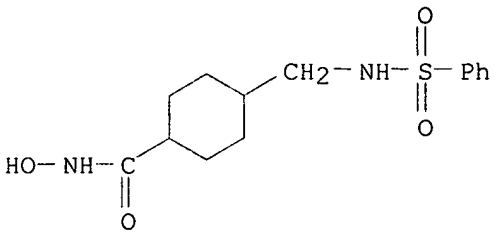
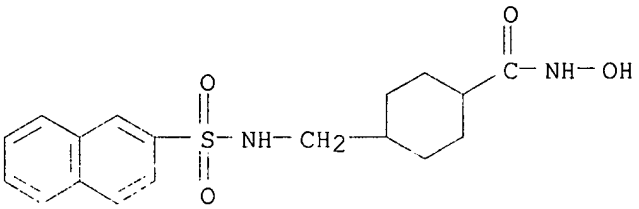
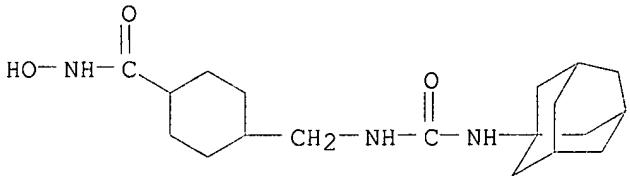


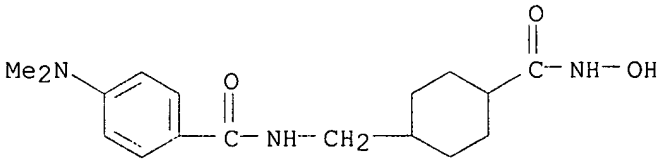
RN 471924-85-3 HCAPLUS
CN Cyclohexanecarboxamide, N-hydroxy-4-[[(2-naphthalenylsulfonyl)amino]methyl]- (9CI) (CA INDEX NAME)



RN 471924-88-6 HCAPLUS
CN Cyclohexanecarboxamide, N-hydroxy-4-[[[(tricyclo[3.3.1.13,7]dec-1-ylamino)carbonyl]amino]methyl]- (9CI) (CA INDEX NAME)



RN 471925-06-1 HCAPLUS
CN Benzamide, 4-(dimethylamino)-N-[[4-[(hydroxyamino)carbonyl]cyclohexyl]methyl]- (9CI) (CA INDEX NAME)



IT 9076-57-7, Histone deacetylase
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(inhibitor; preparation of hydroxycarboxamide derivs. as anticancer agents)
RN 9076-57-7 HCAPLUS
CN Deacetylase, histone (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 3 OF 5 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2002:324923 HCAPLUS
DOCUMENT NUMBER: 137:310681
TITLE: Novel histone deacetylase inhibitors: N-hydroxycarboxamides possessing a terminal bicyclic aryl group
AUTHOR(S): Uesato, Shinichi; Kitagawa, Manabu; Nagaoka, Yasuo; Maeda, Taishi; Kuwajima, Hiroshi; Yamori, Takao
CORPORATE SOURCE: Department of Biotechnology, Faculty of Engineering, Kansai University, Suita, Osaka, 564-8680, Japan
SOURCE: Bioorganic & Medicinal Chemistry Letters (2002), 12(10), 1347-1349
CODEN: BMCLE8; ISSN: 0960-894X
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 137:310681
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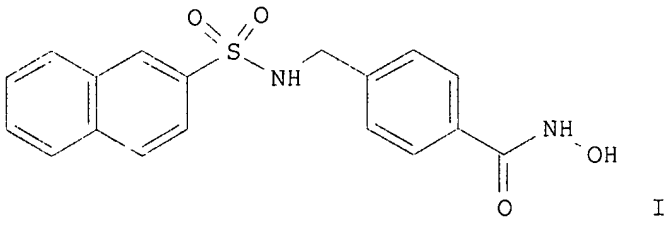


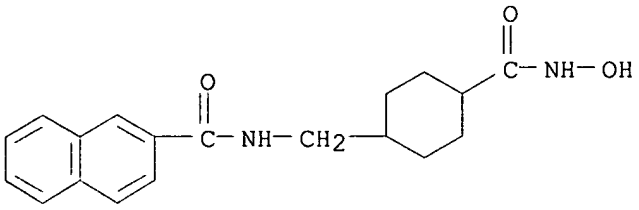
I

AB Utilizing tranexamic acid as a starting material, a series of N-hydroxycarboxamides (e.g., I) were synthesized in order to seek new histone deacetylase (HDAC) inhibitors. Compound I showed antiproliferative activity against HDAC of IC50 = 1100 nM. Further structure optimization involving the replacement of the 1,4-cyclohexylene group with the 1,4-phenylene group yielded the promising HDAC inhibitors which possess a terminal bicyclic aryl amide.

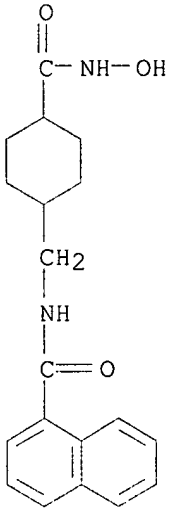
IT 471924-76-2P 471924-77-3P 471924-78-4P
471924-84-2P 471924-85-3P 471924-88-6P
471925-06-1P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(preparation of N-hydroxycarboxamides as antitumor agents)

RN 471924-76-2 HCAPLUS

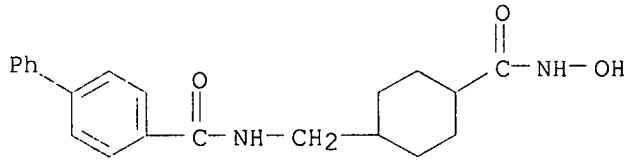
CN 2-Naphthalenecarboxamide, N-[[4-[(hydroxyamino)carbonyl]cyclohexyl]methyl]- (9CI) (CA INDEX NAME)



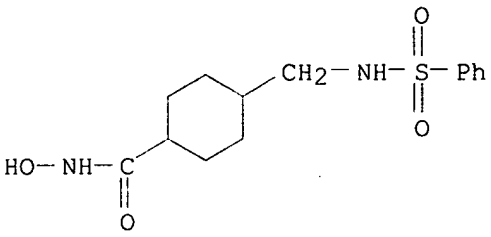
RN 471924-77-3 HCAPLUS
CN 1-Naphthalenecarboxamide, N-[[4-[(hydroxyamino)carbonyl]cyclohexyl]methyl]- (9CI) (CA INDEX NAME)



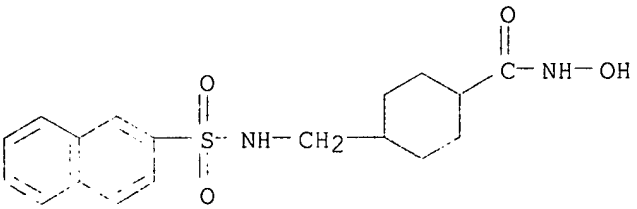
RN 471924-78-4 HCAPLUS
CN [1,1'-Biphenyl]-4-carboxamide, N-[[4-[(hydroxyamino)carbonyl]cyclohexyl]methyl]- (9CI) (CA INDEX NAME)



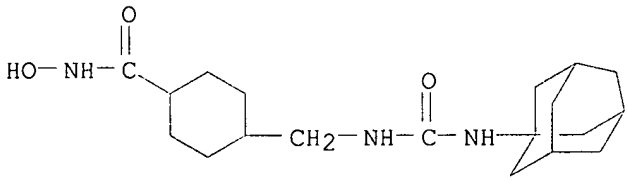
RN 471924-84-2 HCAPLUS
CN Cyclohexanecarboxamide, N-hydroxy-4-[[(phenylsulfonyl)amino]methyl]- (9CI) (CA INDEX NAME)



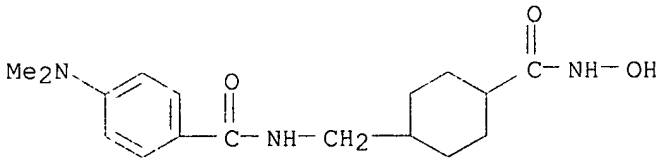
RN 471924-85-3 HCAPLUS
CN Cyclohexanecarboxamide, N-hydroxy-4-[[(2-naphthalenylsulfonyl)amino]methyl]- (9CI) (CA INDEX NAME)



RN 471924-88-6 HCAPLUS
CN Cyclohexanecarboxamide, N-hydroxy-4-[[[(tricyclo[3.3.1.13,7]dec-1-ylamino)carbonyl]amino]methyl]- (9CI) (CA INDEX NAME)



RN 471925-06-1 HCAPLUS
CN Benzamide, 4-(dimethylamino)-N-[[4-[(hydroxyamino)carbonyl]cyclohexyl]methyl]- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 4 OF 5 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:256222 HCAPLUS
DOCUMENT NUMBER: 136:294651
TITLE: Preparation of aryl-substituted N-hydroxy amides with amide linkages as HDAC inhibitors for treatment of

proliferative conditions

INVENTOR(S): Watkins, Clare J.; Romero-Martin, Maria-Rosario; Moore, Kathryn G.; Ritchie, James; Finn, Paul W.; Kalvinsh, Ivars; Loza, Einars; Starchenkov, Igor; Dikovska, Klara; Bokaldere, Rasma Melita; Gailite, Vija; Vorona, Maxim; Andrianov, Victor; Lolya, Daina; Semenikhina, Valentina; Amolins, Andris; Harris, C. John; Duffy, James E. S.

PATENT ASSIGNEE(S): Prolifix Limited, UK

SOURCE: PCT Int. Appl., 346 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
WO 2002026696	A1	20020404	WO 2001-GB4329		20010927 <--
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW					
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG					
CA 2423868	AA	20020404	CA 2001-2423868		20010927 <--
AU 2001090134	A5	20020408	AU 2001-90134		20010927 <--
EP 1335898	A1	20030820	EP 2001-970014		20010927 <--
EP 1335898	B1	20051123			
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR					
JP 2004509941	T2	20040402	JP 2002-531082		20010927 <--
EP 1598067	A1	20051123	EP 2005-15737		20010927 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR					
AT 310719	E	20051215	AT 2001-970014		20010927 <--
US 2004092598	A1	20040513	US 2003-381791		20030827 <--
PRIORITY APPLN. INFO.:			GB 2000-23985	A	20000929 <--
			US 2001-297785P	P	20010614 <--
			EP 2001-970014	A3	20010927 <--
			WO 2001-GB4329	W	20010927 <--

OTHER SOURCE(S): MARPAT 136:294651

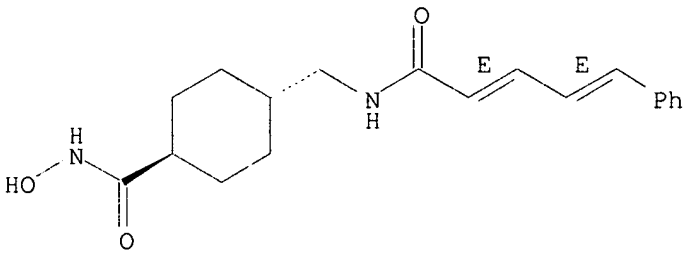
AB The title compds. AQ1JQ2CONHOH [I; wherein A = aryl group; Q1 = aryl leader group having a backbone of at least 2 C atoms; J = NR1CO or CONR1; R1 = amido substituent; Q2 = acid leader group; and pharmaceutically acceptable salts, solvates, amides, esters, ethers, chemical protected forms, and prodrugs thereof] were prepared via solution phase and solid phase synthetic methods as histone deacetylase (HDAC) inhibitors for treatment of proliferative conditions, such as cancer and psoriasis. For example, 6-aminocaproic acid Me ester•HCl was coupled with 2-naphthoyl chloride in the presence of diisopropyl ethylamine in DMF to give the amide. Deesterification (79%), followed by conversion to the N-hydroxyamide using HONH2•HCl in the presence of 1,1'-carbonyldiimidazole in THF, afforded naphthalene-2-carboxylic acid (5-hydroxycarbamoylpentyl)amide II (PX105687) in 40% yield. The latter inhibited recombinant HDAC1 and HDAC2 with IC50 values of 33 nM and 29 nM, resp., and inhibited cell proliferation against the human cervical

adenocarcinoma (HeLa) cell line using cell proliferation reagent WST-1 with IC50 of 1.1 nM. Structure-activity relationship studies showed superior activity for I when (1) the backbone of Q1 had > 1 carbon atoms, and (2) the alkylene group Q2 had > 5 carbon atoms.

IT 408325-14-4P, PX 105552
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(HDAC inhibitor; preparation of N-hydroxy amides with amide linkages as HDAC inhibitors for treatment of proliferative conditions)

RN 408325-14-4 HCAPLUS
CN Cyclohexanecarboxamide, N-hydroxy-4-[[[(2E,4E)-1-oxo-5-phenyl-2,4-pentadienyl]amino]methyl]-, trans- (9CI) (CA INDEX NAME)

Relative stereochemistry.
Double bond geometry as shown.



REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

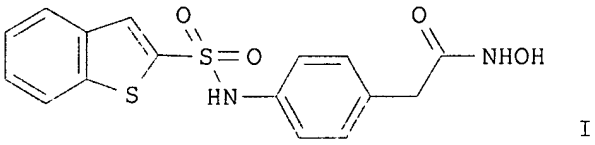
L13 ANSWER 5 OF 5 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2001:396861 HCAPLUS
DOCUMENT NUMBER: 135:5455
TITLE: Preparation of hydroxamic acids as inhibitors of histone deacetylase
INVENTOR(S): Delorme, Daniel; Ruel, Rejean; Lavoie, Rico; Thibault, Carl; Abou-khalil, Elie
PATENT ASSIGNEE(S): Methylgene, Inc., Can.
SOURCE: PCT Int. Appl., 147 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001038322	A1	20010531	WO 2000-IB1881	20001122 <--
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2391952	AA	20010531	CA 2000-2391952	20001122 <--
EP 1233958	A1	20020828	EP 2000-981535	20001122 <--

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR					
US 6541661	B1	20030401	US 2000-718265		20001122 <--
JP 2003514904	T2	20030422	JP 2001-540085		20001122 <--
AU 783504	B2	20051103	AU 2001-18768		20001122 <--
AU 2006200456	A1	20060302	AU 2006-200456		20060202 <--
PRIORITY APPLN. INFO.:			US 1999-167035P	P	19991123 <--
			AU 2001-18768	A3	20001122 <--
			WO 2000-IB1881	W	20001122 <--

OTHER SOURCE(S): MARPAT 135:5455

GI



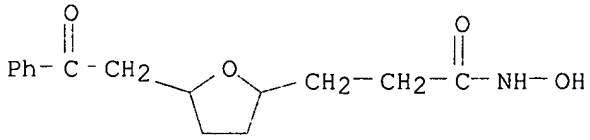
I

AB The title compds. CyL1ArY1CONHZ [Cy = (un)substituted cycloalkyl, aryl, heteroaryl, etc.; L1 = (CH2)mW (wherein m = 0-4; W = CONH, SO2NH, NHCO, NHSO2, NHCONH); Ar = (un)substituted arylene which may be fused to an aryl, heteroaryl, etc.; Y1 = a bond, alkylene; Z = anilinyl, pyridyl, thiadiazolyl, OM (M = H, a pharmaceutically acceptable cation)], useful for inhibiting histone deacetylase enzymic activity, were prepared E.g., a multi-step synthesis of the title compound I which showed IC50 of 7 μM against histone deacetylase in nuclear exts. from H446 cells (pooled HDACs), was given. The invention also provides compns. and methods for treating cell proliferative diseases and conditions.

IT 342373-15-3P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of hydroxamic acids as inhibitors of histone deacetylase)

RN 342373-15-3 HCAPLUS

CN 2-Furanpropanamide, tetrahydro-N-hydroxy-5-(2-oxo-2-phenylethyl)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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=> d ibib abs hitstr l14 1-2

L14 ANSWER 1 OF 2 USPATFULL on STN
ACCESSION NUMBER: 2004:121182 USPATFULL
TITLE: Carbamic acid compounds comprising an amide linkage as hdac inhibitors
INVENTOR(S): Watkins, Clare J., Oxon, UNITED KINGDOM
Romero-Martin, Maria Rosario, Oxon, UNITED KINGDOM
Moore, Kathryn G., Oxon, UNITED KINGDOM
Ritchie, James, Oxon, UNITED KINGDOM
Finn, Paul W., Oxon, UNITED KINGDOM
Kalvinsh, Ivars, Riga, LATVIA
Loza, Einars, Riga, LATVIA
Starchenkov, Igor, Riga, LATVIA
Dikovska, Klara, Riga, LATVIA
Bokaldere, Rasma, Riga, LATVIA
Gailite, Vija, Riga, LATVIA
Vorona, Maxim, Riga, LATVIA
Andrianov, Victor, Riga, LATVIA
Lolya, Daina, Riga, LATVIA
Seminkhina, Valentina, Riga, LATVIA
Amolins, Andris, Riga, LATVIA
Harris, C.John, Kent, UNITED KINGDOM
Duffy, James E. S., Kent, UNITED KINGDOM

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 2004092598	A1	20040513	
APPLICATION INFO.:	US 2003-381791	A1	20030827	(10)
	WO 2001-GB4329		20010927	

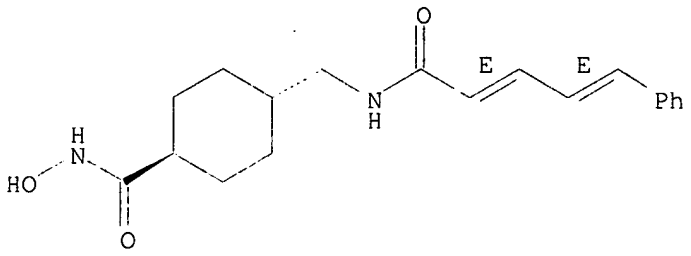
	NUMBER	DATE	
PRIORITY INFORMATION:	GB 2000-23985	20000929	<--

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: Nixon & Varderhye, 8th Floor, 1100 North Glebe Rd, Arlington, VA, 22201-4714
NUMBER OF CLAIMS: 188
EXEMPLARY CLAIM: 1
LINE COUNT: 9591
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB This invention pertains to certain active carbamic acid compounds which inhibit HDAC activity and which have the formula (1) wherein: A is an aryl group; Q1 is an aryl leader group having a backbone of at least 2 carbon atoms; J is an amide linkage selected from: --NR1C(.dbd.O)--and --C(.dbd.O)NR1--; R1 is an amido substituent; and, Q2 is an acid leader group; and pharmaceutically acceptable salts, solvates, amides, esters, ethers, chemically protected forms, and prodrugs thereof. The present invention also pertains to pharmaceutical compositions comprising such compounds, and the use of such compounds and compositions, both in vitro and in vivo, to inhibit HDAC, and, e.g., to inhibit proliferative conditions, such as cancer and psoriasis.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT 408325-14-4P, PX 105552
(HDAC inhibitor; preparation of N-hydroxy amides with amide linkages as HDAC

inhibitors for treatment of proliferative conditions)
RN 408325-14-4 USPATFULL
CN Cyclohexanecarboxamide, N-hydroxy-4-[[[(2E,4E)-1-oxo-5-phenyl-2,4-pentadienyl]amino]methyl]-, trans- (9CI) (CA INDEX NAME)

Relative stereochemistry.
Double bond geometry as shown.



L14 ANSWER 2 OF 2 USPATFULL on STN

ACCESSION NUMBER:	2003:89492 USPATFULL		
TITLE:	Inhibitors of histone deacetylase		
INVENTOR(S):	Delorme, Daniel, St. Lazare, CANADA Ruel, Rejean, St. Lazare, CANADA Lavoie, Rico, Lachine, CANADA Thibault, Carl, Mascouche, CANADA Abou-Khalil, Elie, Laval, CANADA		
PATENT ASSIGNEE(S):	MethylGene, Inc., Montreal, CANADA (non-U.S. corporation)		
	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6541661	B1	20030401
APPLICATION INFO.:	US 2000-718265		20001122 (9)
	NUMBER		DATE
PRIORITY INFORMATION:	US 1999-167035P		19991123 (60) <--
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	GRANTED		
PRIMARY EXAMINER:	McGarry, Sean		
ASSISTANT EXAMINER:	Zara, Jane		
LEGAL REPRESENTATIVE:	Keown & Associates		
NUMBER OF CLAIMS:	34		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	0 Drawing Figure(s); 0 Drawing Page(s)		
LINE COUNT:	3198		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The invention relates to the inhibition of histone deacetylase. The invention provides compounds and methods for inhibiting histone deacetylase enzymatic activity. The invention also provides compositions and methods for treating cell proliferative diseases and conditions.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT 342373-15-3P
(preparation of hydroxamic acids as inhibitors of histone deacetylase)
RN 342373-15-3 USPATFULL

CN 2-Furanpropanamide, tetrahydro-N-hydroxy-5-(2-oxo-2-phenylethyl)- (9CI) (CA INDEX NAME)